

REMARKS

Claims 37-45, 47-51, and 53-67 are pending in this application. By this Amendment, claims 37 and 53 are amended, and claims 52 and 68 are cancelled without prejudice to, or disclaimer of, the subject matter therein. Support for the amendments to claims 37 and 53 can be found at least in claims 52 and 68 as originally filed. No new matter is added.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments: (a) place the application in condition for allowance (for the reasons discussed herein); (b) do not raise any new issue requiring further search and/or consideration (as the amendments amplify issues previously discussed throughout prosecution); (c) satisfy a requirement of form asserted in the previous Office Action; (d) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (e) place the application in better form for appeal, should an appeal be necessary. Entry of the amendments is thus respectfully requested.

Applicants appreciate the courtesies shown to Applicants' representatives by Examiners Baldwin and McNeil in the June 13, 2007 personal interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

The Office Action rejects claims 53-61 and 66-67 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,077,483 to Locker et al. (hereinafter "Locker"); rejects claims 37-51 and 62-66 under 35 U.S.C. §103(a) over Locker in view of U.S. Patent No. 5,629,067 to Kotani et al. (hereinafter "Kotani"); and rejects claims 52 and 68 under 35 U.S.C. §103(a) over Locker in view of Kotani, and further in view of U.S. Patent No. 5,125,231 to Patil et al. (hereinafter "Patil"). The rejection of canceled claims 52 and 68 are traversed and the rejections of claims 37-45, 47-51, and 63-67 are respectfully traversed.

As discussed during the personal interview, Locker, Kotani and Patil, either alone or in a permissible combination, at least fail to disclose or even suggest a cell structure and an

outer wall that contain kaolin, and the average particle diameter of kaolin contained in the material for forming outer wall is $1/10$ or more and $1/2$ or less of the average particle diameter of kaolin contained in the cell structure, as recited in independent claims 37 and 53.

With respect to the rejection of claims 52 and 68, the Office Action acknowledges that neither Locker or Kotani disclose the use of kaolin in a honeycomb structure. The Office Action alleges Patil remedies the deficiencies of Locker. Particularly, the Office Action alleges Patil teaches that it is well known in the art to have kaolin in honeycomb structures for use in an engine exhaust system. The Office Action further alleges that it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the particle size of kaolin for the intended application. Applicants respectfully disagree with these assertions.

Applicants respectfully submit that it would not have been obvious to one having ordinary skill in the art to modify Locker, to include a cell structure and an outer wall that contain kaolin and have the average particle diameter of kaolin contained in the material for forming outer wall is $1/10$ or more and $1/2$ or less of the average particle diameter of kaolin contained in the cell structure. Moreover, Patil only generally lists kaolin/kaolin clay as one of many materials that can could be used as a substrate (see Patil, col. 5, lines 9-15, and col. 7, lines 1-5), but fails to teach or even suggest specific ranges as recited in independent claims 37 and 53.

Importantly, the Applicants' specification indicates that there are direct benefits of having the particular average particle sizes for the kaolin contained in the material for forming the claimed outer walls and cell structure (see, for example, the specification at page 19, line 23 - page 21, line 7). MPEP §2141(I) lists "unexpected results" as an objective evidence that must be considered in applying obviousness rejections. Moreover, Applicants

respectfully submit that the claimed range for the average particle diameter of kaolin has criticality, not taught or even suggested in Locker, Kotani or Patil.

For example, direct benefits of these features include: the coefficient of thermal expansion of the claimed outer wall can be reduced; the absolute value of the differences between the coefficients of thermal expansion of the claimed cell structure and outer wall can be made smaller; and the thermal shock resistance can be improved (see, for example, the specification at page 20, lines 15-25). Because these direct benefits are not disclosed or even suggested by Locker, Kotani or Patil, it cannot reasonably be asserted that one having ordinary skill in the art would modify Locker to include the claimed features.

Accordingly, Applicants respectfully submit that Locker, Kotani and Patil, alone or in combination, fail to teach or even suggest all of the limitations as recited in claims 37 and 53. Therefore, it is respectfully submitted that independent claims 37 and 53 are patentable over Locker, Kotani and Patil. Further, it is respectfully submitted that claims 38-45, 47-51 and 54-67 are patentable at least in view of the patentability of independent claims 37 and 53, from which they variously depend, as well as for the additional features they recite. Accordingly, it is respectfully requested that the rejections be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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